

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 57160227  
PUBLICATION DATE : 02-10-82

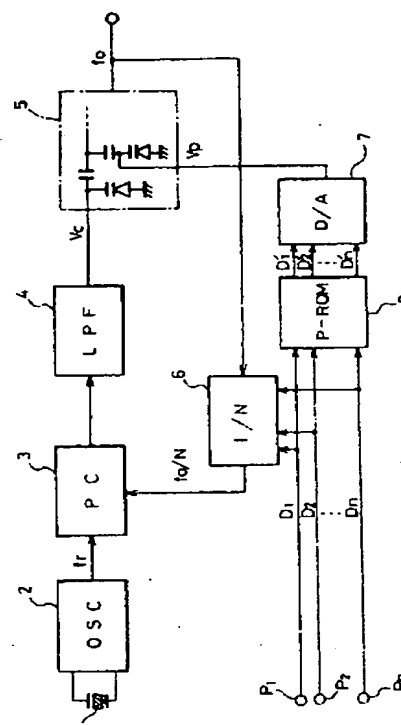
APPLICATION DATE : 30-03-81  
APPLICATION NUMBER : 56045611

APPLICANT : FUJITSU LTD;

INVENTOR : MURAYAMA YUKIO;

INT.CL. : H03L 7/18 H03J 7/06 // H04B 7/26

TITLE : FREQUENCY SYNTHESIZER



ABSTRACT : PURPOSE: To shorten a channel transition time by storing a memory with the digital values of the best preset voltages for respective channels of the radio, etc., and applying them to a voltage-controlled oscillator after D/A conversion.

CONSTITUTION: Digital values  $D_1 \sim D_n$  as channel information on the radio, etc., are inputted to a P-ROM8 and a program counter 6 for  $1/N$  frequency division. In the P-ROM8, those digital values  $D_1 \sim D_n$  are stored by being converted into digital values  $D_1' \sim D_n'$  for generating the best preset voltage  $V_p$ . The digital values  $D_1' \sim D_n'$  are converted by a D/A converter 7 into the voltage  $V_p$ , which is applied to a voltage-controlled oscillator 5. The output of the oscillator 5 is frequency-divided by a counter 6 into values which correspond to the digital values  $D_1 \sim D_n$ , and its outputs are compared with a reference signal from a reference oscillator 2 by a phase comparator 3; and the phase difference signal is passed through an LPF4 to obtain a voltage  $V_c$ , controlling the oscillator 5. Since the best preset voltage  $V_p$  is applied to the oscillator 5, a channel transition time is shortened regardless to whether a change in channel is large or not.

COPYRIGHT: (C)1982,JPO&Japio